

ABSTRACT OF THE DISCLOSURE

A sensor element includes a pair of differential capacitors having capacitances $C1$ and $C2$ causing a complementary capacitance change in response to an applied acceleration. An additional capacitor is connected to either capacitor to generate a capacitance difference between the capacitance $C1$ and the composite capacitance $C2+C3$. This enables to adjust an input LPFout of a correcting circuit correcting the offset level of the sensor output Gout in such a manner that a correction amount in the correcting circuit becomes large and accordingly deviates sufficiently from a reference level Vref. In case of failure in which the input of the correcting circuit is fixed to the reference level Vref, the sensor output Gout surely deviates from the reference level Vref by an amount equivalent to the correction in the correcting circuit.

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